

PATENT
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPEAL BRIEF FILED UNDER 37 CFR 1.191

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

RE: Patent Application No. 10/724,143
Filing Date: December 1, 2003
Inventor: Karl T. Heck et al.
Title: MOBILE DUAL CONTAINMENT HIGHWAY TANK
Group Art Unit: 3753
Examiner: CHAMBERS, A. Michael
Attorney Docket No. 369-2US

TO THE COMMISSIONER FOR PATENTS:

This Appeal Brief is filed in support of the Notice of Appeal filed May 23, 2007, appealing the Examiner's final rejection dated March 9, 2007, of pending Claims 1 – 23. Claims 1 – 23 were rejected under 35 U.S.C. 103(a) as being unpatentable over Watkins, Jr. (US patent no. 4,394,027) in view of Patterson et al. (US patent no. 4,579,249).

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1. REAL PARTY IN INTEREST

The Assignee, Envirotankers Inc., is the real party in interest, by way of an assignment recorded on July 18, 2007.

2. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

3. STATUS OF CLAIMS

Claims 1 – 23 have been finally rejected, and it is these rejections that are being appealed.

4. STATUS OF AMENDMENTS

A request to correct inventorship under 37 CFR 1.48 was filed on June 28, 2007. However, no amendments to the application have been filed subsequent to the final rejection of March 9, 2007.

5. SUMMARY OF CLAIMED SUBJECT MATTER

Of the claims at issue, claims 1, 20 and 23 are independent claims. Claims 2 – 19 depend directly or indirectly from claim 1, and claims 21 and 22 depend from claim 20. Claim 23 makes reference to claim 1 in its method steps. Claim 1 is directed toward a highway tank for onsite storage of fuel, whereas claims 20 and 23 relate to a method of transporting and storing fluids using a highway tank. In the summary below, the paragraph numbers refer to the numbers in the application as filed.

As set out in claim 1, the highway tank comprises a chassis 102 (para. 11), ground engaging wheels 104 supported by the chassis 102 (para. 11), a double-walled tank 106 mounted on the chassis 102 in a horizontally disposed manner (para. 11, 12), and a fluid transfer system 108 connected to the tank 106 for filling and discharging the tank 106. The fluid transfer system 108 is mounted on the chassis 102 and connected to the tank 106 for fluid transfer (para. 11, 13, 14).

The method set out in claim 20 comprises providing a tank 106 that is double walled on a chassis 102 in a horizontally disposed matter (para. 11). The chassis 102 also supports ground engaging wheels 104 (para. 11). The tank 106 is connected to a fluid transfer system 108 for filling and discharging the tank 106 (para 11, 13, 14). The method also comprises the steps of filling the tank 106 with a fluid, transporting the fluid to a location, and storing the fluid in the tank 106 at the location. The tank 106 may be cylindrical, and it may be refilled at the location (para. 13, 14, 15).

The method set out in claim 23 comprises the steps of providing a tank 106 as defined by claim 1, filling the tank 106 with a fuel, transporting the fuel to a location, storing the fuel in the tank 106 at the location, and using the tank 106 at the location to fuel equipment used at the location (para. 13, 14, 15).

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1 – 23 currently stand rejected under 35 U.S.C. 103(a) as being unpatentable over Watkins, Jr. (US patent no. 4,394,027) in view of Patterson et al. (US patent no. 4,579,249). In view of this rejection, the issue presented for review on appeal is as follows:

Issue: Whether Claims 1 – 23 are unpatentable over Watkins, Jr. (US patent no. 4,394,027) in view of Patterson et al. (US patent no. 4,579,249), and in particular:

- whether there is motivation to modify the tank of Watkins, Jr. to be double-walled; and
- whether Watkins, Jr. or Patterson et al. teaches using a double-walled tanker for on-site storage of fuel.

7. ARGUMENT

Under 35 U.S.C. 103(a), a rejection of the claims generally must meet four key elements as set out by the Supreme Court in *Graham v. John Deere*, 383 U.S. 1, 148 USPQ 459 (1966), and summarized in the *Manual of Patent Examining Procedure (MPEP) Edition 8 (E8), August, 2001, Latest Revision Aug 2006*, s. 2141. These elements are as follows:

- (A) Determining the scope and contents of the prior art;
- (B) Ascertaining the differences between the prior art and the claims in issue;
- (C) Resolving the level of ordinary skill in the pertinent art; and
- (D) Evaluating evidence of secondary considerations.

The applicant submits that the examiner has failed to determine correctly the scope and contents of the prior art and also to assess properly the differences between the references and the claimed invention.

The applicant further submits that the Examiner incorrectly combined the cited references to support the obviousness rejection. The recent Supreme Court decision in *KSR Int'l Co. Inc. v. Teleflex Inc.* 550. U.S. __ (2007) has rejected a strict adherence to the teaching, suggestion and motivation test. However, the court also affirmed that “[a] patent composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the prior art” (at __) and that there must still be some motivation to combine the references.

Claims 1 – 19

Issue 1 – There is no motivation to modify the tank of Watkins, Jr. to be double-walled

Watkins, Jr. teaches a fuel transport land vehicle that uses a trailer. As recognized by the

Examiner, Watkins, Jr. does not teach a double-walled tank. The Examiner argues that “[i]t would have been obvious to one of ordinary skill in the art to modify the tank of Watkins, Jr. to be double walled in order to more safely transport the fuel.” (emphasis added)

The Applicant submits that safety concerns would provide insufficient motivation to modify Watkins, Jr. to have a double-walled tank. The tanker taught by Watkins, Jr. is single-walled, and as with other single walled tankers, is sufficiently safe to transport hazardous fluid such as jet fuel according to present regulations. According to the industry’s understanding of fuel transportation, adding a second wall would increase the weight and expense of the tank without any tangible benefit. A person skilled in the art would therefore have no reason to look beyond the teachings in the art related to transporting fuel, which, without exception are directed toward using a single-walled tank.

Issue 2 – Neither Watkins, Jr. nor Patterson et al. teaches a using a tanker for on-site storage.

Claim 1 refers to a highway tank for onsite storage of fuel that comprises a double-walled tank. The tank can therefore be used to (1) transport of fuel, (2) store fuel onsite, and (3) deliver fuel onsite. Watkins Jr. is concerned solely with the transportation and delivery of jet fuel. Watkins Jr. does not teach using the tank for onsite storage of fuel, and, as the highway tank as claimed was not made double-walled to improve safety during transportation, there is no motivation to modify Watkins Jr. to have a double-walled tank.

Patterson et al. teaches a double-walled tank, the purpose of which is to insulate cryogenic fluids. Patterson et al. is not concerned with transporting fuel and, more importantly, not with storing fuel onsite. Furthermore, the main concern of Patterson et al. is not to more safely transport cryogenic fluids (the majority of which are liquid nitrogen or carbon dioxide), but rather to better insulate these cryogenic fluids. Indeed, the only reference to leaks made by Patterson et al. is with reference to heat leaking in to the fluid (see col. 4, lines 64 – 65 and col.

6, lines 59 – 62). The tanker of Patterson et al. would be inappropriate for the storage of cryogenic fluids, as there is only insulation, and no active element to cool the fluids. Thus, it is clear that Patterson et al. did not contemplate storage as a potential use for the tanker. Patterson et al. therefore does not make up the deficiency in Watkins, Jr.

The current industry practice for crews requiring a fuel dump, such as oil and gas, forestry, and seismic crews, is to transport a storage tank to a desired location. The storage tank must comply with the applicable regulations related to storage tanks, which means that the tank must be double-walled. The applicable standard in Canada for storage tanks is cited as reference C2 in the information disclosure statement. This storage tank is transported empty. A highway tank that complies with the transportation regulations cited as reference C1 in the information disclosure statement, but not the storage tank regulations, is then brought out to fill the storage tank. If the storage tank needs to be moved, it is first emptied, and then refilled in its new location. Thus, there are tanks used for transporting fuel to a site, and there are tanks for storing the fuel on site. The tanks used are not designed, and are therefore inappropriate, to perform both functions.

The double-walled tank claimed by the Applicant allows a crew to drive a highway tank full of fuel to a site, and then use it as a storage tank from which fuel may be delivered as needed to re-fuel vehicles. Thus, instead of having to provide two tanks for transportation and storage, these functions are provided by a single tank. The Applicant is therefore able to provide a new delivery service for clients, instead of two separate services. The claimed invention represents a marked departure from the industry’s mindset. The claimed highway tank may be easily made once the idea has been explained, but this is with the benefit of hindsight. The inventors were the first to come up with the idea of creating a single tank to fulfill the roles of both a transport tank and a storage tank. The patent should not be denied patent protection simply because the idea is easily implemented. This principle is evident from *Goodyear Tire & Rubber Co. v. Ray-O-Vac Co.*, 321 U.S. 275 (1944) at 279, where the court held that “Viewed after the event, the

means ... adopted seem simple and such as should have been obvious to those who worked in the field, but this is not enough to negative invention." Again, in *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (1987) at 1572: "The constitutional purpose [of the patent system] is to encourage disclosure of patentable contributions to "progress in the useful arts", *all* the useful arts, not just the esoteric. The statute requires utility, novelty, and nonobviousness, not complexity." (emphasis in original)

In summary, it would not be obvious to modify Watkins, Jr. to have a double-walled tank to provide a safer tank, as the single-walled tanks presently used are sufficiently safe. In addition, neither of these references discusses the use of a double-walled tank for on site storage of fuel. Patterson et al. does not teach a double-walled tank for safety purposes, neither is Patterson et al. concerned with transporting fuel, and the combination of Patterson et al. and Watkins, Jr. is therefore inappropriate. The Applicant submits that it would not be obvious to one skilled in the art to use a highway tank as a storage tank, and therefore there would be no motivation to provide a double walled highway tank. As claims 2 through 19 depend upon claim 1, it is submitted that these are also not obvious based on similar arguments.

Claims 20 – 23

Claims 20 and 23 specifically recite "transporting the fluid to a location" and "storing the fluid in the tank at the location". As stated above, the current industry practice is to provide a separate tank for each function. The Examiner rejected these claims by simply stating that "it would have been obvious to one of ordinary skill in the art to operate the modified tank truck of Watkins, Jr. as above by the recited method steps." The Examiner's logic requires that, first, it would be obvious to modify the tank truck of Watkins, Jr., and second, once the truck has been modified, it would be obvious to use the modified tank truck for transportation as well as on-site storage. As argued above with respect to claim 1, it would not be obvious to modify the tank truck of Watkins, Jr. to have a double-walled tank. Furthermore, neither Watkins, Jr. nor

Patterson et al. suggests that their tanks would be suitable for onsite storage of fluid, and more particularly, fuel. Because of common practices in the industry, the differences in regulation, and the lack of teachings by either reference, the Applicant submits that these claims would not be obvious. As claims 21 and 22 depend upon claim 20, the Applicant submits that these claims are also not obvious.

8. CONCLUSION

In light of the above arguments, appellants submit that claims 1, 20 and 23 are patentable over Watkins, Jr. in view of Patterson et al., as there is no motivation to combine the references to obtain the claimed invention, and even if there were motivation, the combination does not lead to what is claimed. Accordingly, appellants submit that the Office Action has failed to present a *prima facie* case of obviousness that supports a rejection of these claims. The Board should direct that the 35 U.S.C. § 103(a) rejection of claims 1, 20 and 23 be withdrawn and the claim allowed. As claims 2 – 19, 21 and 22 depend upon either claim 1 or 20 directly or indirectly, these claims should also be allowed.

Respectfully submitted

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9. CLAIM APPENDIX

1. A highway tank for onsite storage of fuel, the highway tank being double-walled and mobile, and comprising:
 - a chassis;
 - ground engaging wheels supported by the chassis;
 - a tank, the tank being double-walled, the tank mounted on the chassis in a horizontally disposed manner; and
 - a fluid transfer system connected to the tank for filling and discharging the tank, the fluid transfer system mounted on the chassis and connected to the tank for fluid transfer.
2. The highway tank of claim 1 in which the tank is substantially cylindrical.
3. The highway tank of claim 1 in which the fluid transfer system comprises fuel-forwarding equipment.
4. The highway tank of claim 3 in which the fuel-forwarding equipment comprises a fuel filter, a generator and a fuel pump.
5. The highway tank of claim 4 in which the fuel forwarding equipment is located in a cabinet below the tank.
6. The highway tank of claim 4 in which the fuel forwarding equipment is located in front of the tank.
7. The highway tank of claim 4 in which the generator is located a safe distance from the fuel pump.
8. The highway tank of claim 1 in which the tank has bottom loading equipment.

9. The highway tank of claim 8 in which the fluid transfer system comprises a level sensor, a vent, and a bottom loading valve.
10. The highway tank of claim 1 in which the tank comprises a top loading valve system.
11. The highway tank of claim 10 in which the top loading valve system comprises overfill protection.
12. The highway tank of claim 1 further comprising a sliptank mounted on the chassis to store fuel separate from the tank.
13. The highway tank of claim 1 in which the tank is divided into plural sections for separating fuel, each section having a valve system for loading and unloading the section.
14. The highway tank of claim 1 in which the tank comprises baffles on the interior of the tank.
15. The highway tank of claim 8 in which the fluid transfer system further comprises anti-siphon protection.
16. The highway tank of claim 1 further comprising a drip tray mounted on the chassis and associated with the fluid transfer system to catch spills of fluid occurring during fluid transfer.
17. The highway tank of claim 16 in which the drip tray comprises the bottom of a cabinet under the tank, the bottom of the cabinet having a surrounding wall below the access to the cabinet and the bottom having a drain to remove any fluid.

18. The highway tank of claim 1 in which the walls of the tank are comprised of aluminum.
19. The highway tank of claim 1 in which the walls of the tank are comprised of steel.
20. A method of transporting and storing fluids, the method comprising the steps of:
 providing a tank that is double walled on a chassis in a horizontally disposed manner, the chassis also supporting ground engaging wheels, the tank being connected to a fluid transfer system for filling and discharging the tank;
 filling the tank with a fluid;
 transporting the fluid to a location; and
 storing the fluid in the tank at the location.
21. The method of claim 20 in which the tank is substantially cylindrical.
22. The method of claim 20 further comprising the step of refilling the tank at the location.
23. A method of transporting and storing fuel, the method comprising the steps of:
 providing a tank as defined by claim 1;
 filling the tank with a fuel;
 transporting the fuel to a location;
 storing the fuel in the tank at the location; and
 using the tank at the location to fuel equipment used at the location.

10. EVIDENCE APPENDIX

None.

11. RELATED PROCEEDINGS APPENDIX

None.